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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,868	12/31/2003	Hsin Hsin Chou	456.03.124US1	6325

7590

09/21/2005

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EXAMINER

LEE, SUSAN SHUK YIN

ART UNIT	PAPER NUMBER
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2852

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/749,868	CHOU ET AL.	
	Examiner	Art Unit	
	Susan S. Lee	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☒ Claim(s) 1-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/27/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claims 1-11 are objected to because of the following informalities:

As to claim 1, line 1, "the conductivity" lacks antecedent basis.

As to claim 1, line 9, "the current vs. time" lacks antecedent basis.

As to claim 2, line 15, "the toner paste density" lacks antecedent basis.

As to claim 2, lines 15-16, "the paste concentration" lacks antecedent basis.

As to claim 2, the equation defining $f(t)$ on page 22 needs a left parenthesis.

As to claim 4, line 1, "the charge to mass ratio" lacks antecedent basis.

As to claim 4, line 2, " (Q/m) " is not defined.

As to claim 4, line 2, "the percent solids" lacks antecedent basis.

As to claim 4, line 2, "the toner particles" lacks antecedent basis.

As to claim 4, lines 3-4, "the ground plate" lacks antecedent basis.

As to claim 4, line 4, "the associated charge density" lacks antecedent basis.

As to claim 5, line 2, "the percent solids" lacks antecedent basis.

As to claim 5, line 2, "the toner particles" lacks antecedent basis.

As to claim 5, lines 3-4, "the ground plate" lacks antecedent basis.

As to claim 5, line 4, "the associated charge density" lacks antecedent basis.

As to claim 6, line 1, "the charge to mass ratio" lacks antecedent basis.

As to claim 6, line 2, " (Q/m) " is not defined.

As to claim 6, line 2, "the percent solids" lacks antecedent basis.

As to claim 6, line 2, "the toner particles" lacks antecedent basis.

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As to claim 6, lines 3-4, "the ground plate" lacks antecedent basis.

As to claim 6, line 4, "the associated charge density" lacks antecedent basis.

As to claim 7, line 1, "the conductivity" lacks antecedent basis.

As to claim 9, line 1, "the charge to mass ratio" lacks antecedent basis.

As to claim 9, line 2, "(Q/m)" is not defined.

As to claim 9, line 2, "the percent solids" lacks antecedent basis.

As to claim 9, line 2, "the toner particles" lacks antecedent basis.

As to claim 9, lines 3-4, "the ground plate" lacks antecedent basis.

As to claim 9, line 4, "the associated charge density" lacks antecedent basis.

As to claim 10, line 1, "the charge to mass ratio" lacks antecedent basis.

As to claim 10, line 2, "(Q/m)" is not defined.

As to claim 10, line 2, "the percent solids" lacks antecedent basis.

As to claim 10, line 2, "the toner particles" lacks antecedent basis.

As to claim 10, lines 3-4, "the ground plate" lacks antecedent basis.

As to claim 10, line 4, "the associated charge density" lacks antecedent basis.

As to claim 11, line 1, "the conductivity" lacks antecedent basis.

As to claim 11, line 6, "the data attributable to impurity ions" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Teraoka et al. (6,819,888).

Teraoka et al. discloses a liquid development apparatus with a means to detect a toner charge quantity. A micrometer section 100 has two electrodes 101 and 102. There is a gap between these two electrodes in which liquid developer 106 is filled. A voltage is applied to between the electrodes 101 and 102 by voltage generation apparatus 110. The current generated in the liquid developer 106 by the application thereof is detected by the micrometer 105 in the micrometer section 100, and the detection result is transmitted to a personal computer 120 as the current value data of a digital method. The personal computer 120 carries out various calculation processing based on the current value data transmitted from the micrometer 105. A voltage such as 100V can be applied to between the two electrodes. Note column 7, lines 31-59.

Allowable Subject Matter

Claims 7-16 are allowed over the prior art of record.

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Claims 2 and 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miyamoto et al., Simms et al., Yoo, Tsukamoto et al., Park, Nozawa et al., Chen et al., and Foote discloses art in liquid developing apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 571-272-2137. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Art Grimley can be reached on 571-272-2136 or 571-272-2800 (Ext. 52). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Susan S. Lee
Primary Examiner
Art Unit 2852

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